

peptide has units comprising [of the formula] $(AB)_m$.

B¹
Ent

7. (amended) A vaccine as defined in claim 1 wherein the peptide has units comprising [of the formula] $(ABC)_p$.

8. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]: $(A)_m$
(Lys)₁₀ (SEQ ID NO: 1)

B²

9. (twice amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]: $(AB)_m$ Asp not listed as B
(Lys-Asp)₅ (SEQ ID NO: 4)

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C13

10. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]: $(AB)_m$
(Lys-Phe)₅ (SEQ ID NO: 5)

11. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]: not a formula
Lys-Phe-Leu-Lys-Lys-Thr-Leu (SEQ ID NO: 6)
A B C A

B³

12. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]: $(ABC)_p$ OK
(Lys-Phe-Leu)₂-Lys (SEQ ID NO: 7)

13. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]: $(ABC)_p$ OK
(Lys-Phe-Leu)₃-Lys (SEQ ID NO: 8)

14. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]: $(ABC)_p$
(Arg-Tyr-Val)₃ (SEQ ID NO: 9)

15. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]: $(ABC)_p$
(Lys-Phe-Phe)₃-Lys (SEQ ID NO: 10)

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B3
cont

16. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:
(Lys-Leu-Leu)₃ (SEQ ID NO: 11) (ABC)_P

17. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:
(Lys)₆(Phe-Lys)₂ (SEQ ID NO: 12) formula?

19. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:
Cys-Lys-Phe-Lys-Lys-Cys
s-----s (SEQ ID NO: 14) formula?

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20. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:
Lys-Phe-Lys-Cys-Lys-Phe-Lys-Phe-Lys-Cys
s-----s (SEQ ID NO: 15)

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C4

21. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:
Lys-Leu-Lys-Cys-Lys-Leu-Lys-Leu-Lys-Cys
s-----s (SEQ ID NO: 16)

22. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:
Arg-Thr-Arg-Cys-Arg-Phe-Lys-Arg-Arg-Cys
s-----s (SEQ ID NO: 17)

23. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:
Lys-Cys-(Lys-Phe-Lys)₂-Cys-Lys
s-----s (SEQ ID NO: 18)

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C4

24. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Cys-(Lys)₄-(Phe)₄-Cys

s-----s (SEQ ID NO: 19)

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D1

25. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Cys-(Lys-Phe-Leu)₃-Lys-Cys

s-----s. (SEQ ID NO: 20)

26. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Val-Lys-Ala-Leu-Arg-Val-Arg-Arg-Leu (SEQ ID NO: 21)

27. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Ser-Leu-Ser-Leu-Lys-Arg-Leu-Thr-Tyr-Arg (SEQ ID NO: 22)

28. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Val-Arg-Lys-Ser-Phe-Phe-Lys-Val (SEQ ID NO: 23)

29. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Phe-Leu-Lys-Pro-Gly-Lys-Val-Lys-Val (SEQ ID NO: 24)

30. (twice amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Glu-Leu-Lys-Arg-Ile-Lys-Ile (SEQ ID NO: 25)

31. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Trp-Lys-Ala-Gln-Lys-Arg-Phe-Leu (SEQ ID NO: 26)

32. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

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CMT
Lys-Trp-Lys-Ala-Gln-Lys-Arg-Phe-Leu-Lys (SEQ ID NO: 27)

33. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Arg-Leu-Lys-Trp-Lys-Tyr-Lys-Gly-Lys-Phe (SEQ ID NO: 28)

B7
Sub CB
34. (twice amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Cys-Gln-Ser-Trp-Lys-Ser-Ser-Glu-Ile-Arg-Cys-Gly-Lys

s-----s (SEQ ID NO: 29)

Sub CA
35. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Cys-Lys-Phe-Leu-Lys-Lys-Cys

s-----s (Seq ID NO: 30)

B8
36. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Thr-Lys-Cys-Lys-Phe-Leu-Lys-Lys-Cys
s-----s (SEQ ID NO: 31)

37. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Phe-Leu-Lys-Lys-Thr (SEQ ID NO: 32)

Sub C10
38. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Cys-Lys-Lys-Leu-Phe-Lys-Cys-Lys-Thr-Lys

s-----s (SEQ ID NO: 33)

39. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Cys-Lys-Lys-Leu-Phe-Lys-Cys-Lys-Thr

s-----s (SEQ ID NO: 34)

40. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Ile-Lys-Thr-Lys-Cys-Lys-Phe-Leu-Lys-Lys-Cys

s-----s (SEQ ID NO: 35)

Sub
C10

41. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Ile-Lys-Thr-Lys-Lys-Phe-Leu-Lys-Lys-Thr (SEQ ID NO: 36)

42. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Ile-Lys-Phe-Leu-Lys-Phe-Leu-Lys-Phe-Leu-Lys (SEQ ID NO: 37)

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43. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Phe-Leu-Lys-Phe-Leu-Lys (SEQ ID NO: 38)

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44. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Arg-Tyr-Val-Arg-Tyr-Val-Arg-Tyr-Val (SEQ ID NO: 39)

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D3

45. (twice amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Phe-Phe-Lys-Phe-Phe-Lys-Phe-Phe (SEQ ID NO: 40)

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D4

46. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Ile-Lys-Phe-Leu-Lys-Phe-Leu-Lys-Phe-Leu (SEQ ID NO: 41)

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Sub
C4

47. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

(Lys)₆Phe-Leu-Phe-Leu (SEQ ID NO: 42)

48. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Cys-Lys-Phe-Lys-Phe-Lys-Phe-Lys-Phe-Cys

s-----s (SEQ ID NO: 43)

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49. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Trp-Lys-Ala-Gln-Lys-Arg-Phe-Leu-Lys (SEQ ID NO: 44)

Sub D5
50. (amended) A vaccine as defined in claim 1 wherein the peptide comprises [is of the formula]:

Lys-Arg-Leu-Lys-Trp-Lys-Tyr-Lys-Gly-Lys-Phe (SEQ ID NO: 45)

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51. (amended) A method for the preparation of a vaccine for prevention of gram-negative infections and the effects of endotoxins, said method comprising combining LPS with a stoichiometric excess of a peptide comprising [of the formula]:

(a) $(A)_n$ wherein A is Lysine or Arginine and n is an integer with a minimum value of 7;

Sub C13
(b) $(AB)_m$ wherein A is Lysine or Arginine and B is a hydrophobic amino acid selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; m is an integer with a minimum value of 3; and

(c) $(ABC)_p$ wherein A is a cationic amino acid which is Lysine or Arginine; B and C are hydrophobic amino acids which may be the same or different and are selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p is an integer with a minimum value of 2.

Kindly add the following claims:

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B
--55. A vaccine for preventing gram-negative infections and the effects of endotoxins which comprises a complex obtained by combining LPS in a free form or in conjugate form with a stoichiometric excess of a peptide of the formula:

Cys-(Lys)₅-Cys

s-----s (SEQ ID NO: 13)

--56. A vaccine as defined in claim 1 wherein the LPS is derived from non-typable H. influenzae.